PATENT COOPERATION ... EATY

From the INTERNATIONAL BUREAU

PCT	To:
NOTIFICATION OF ELECTION (PCT Rule 61.2) Date of mailing (day/month/year)	United States Patent and Trademark Office (Box PCT) Crystal Plaza 2 Washington, DC 20231 ETATS-UNIS D'AMERIQUE
23 March 1997 (23.03.97)	in its capacity as elected Office
International application No. PCT/US95/06620	Applicant's or agent's file reference JP6-131165
International filing date (day/month/year) 24 May 1995 (24.05.95)	Priority date (day/month/year)
Applicant YAMADA, Michiya et al	
1. The designated Office is hereby notified of its election made. X in the demand filed with the International Preliminar 23 December	y Examining Authority on: 1996 (23.12.96) national Bureau on: date or, where Rule 32 applies, within the time limit under
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer D. Ybarra
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 730.91.11



PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference					
JP6-131165	FOR FURTHER ACTION		ication of Transmittal of International y Examination Report (Form PCT/IPEA/416)		
International application No.	International filing date (day	month/year)	Priority date (day/month/year)		
PCT/US95/06620	24 MAY 1995	NONE			
International Patent Classification (IPC) of Please See Supplemental Sheet.	or national classification and l	PC			
Applicant EXXON RESEARCH AND ENGINEE	RING COMPANY				
Examining Authority and is	transmitted to the applicant	s been prepa according to	red by this International Preliminary Article 36.		
2. This REPORT consists of a	total of sheets.		•		
been amended and are the (see Rule 70.16 and Sect	e basis for this report and/or ion 607 of the Administrative	sheets containii	cription, claims and/or drawings which have ng rectifications made before this Authority. Inder the PCT).		
These annexes consist of a to	tal of sheets.				
3. This report contains indication	s relating to the following	items:	•		
I X Basis of the repor	nt				
II Priority					
III Non-establishmen	t of report with regard to a	ovelty, invent	tive step or industrial applicability		
IV Lack of unity of	invention				
V X Reasoned statement citations and expla	t under Article 35(2) with renations supporting such state	egard to novelt	y, inventive step or industrial applicability;		
VI Certain documents	cited				
VII Certain defects in	the international application				
VIII Certain observation	ns on the international applica	ation			
• •					
•					
Date of submission of the demand	Dat	e of completion	of this report		
28 DECEMBER 1996		02 SEPTEMBE			
Name and mailing address of the IPEA/U	JS Aut	horized officer	11.121h		
Commissioner of Patents and Tradem. Box PCT Washington, D.C. 20231					
Facsimile No. (703) 305-3230	Tele	phone No. (703) 308-0661		



International application No.	
PCT/US95/06620	

I.	Basis o	f the report		
1. Thi	s report l der Artic	has been drawn on the le 14 are referred to it	basis of (Substitute sheets wi this report as "originally filed	hich have been furnished to the receiving Office in response to an invitation I and are not annexed to the report since they do not contain amendments):
	X	1	d application as original	·
	X	the description	pages <u>1-15</u>	, as originally filed.
			pages NONE	, filed with the demand.
			pages NONE	, filed with the letter of
			pages	, filed with the letter of
	X	the claims,	Nos. <u>1-5</u>	, as originally filed.
			Nos. NONE	, as amended under Article 19.
			Nos. NONE	, filed with the demand.
			Nos. NONE	, filed with the letter of
			Nos.	, filed with the letter of
	X	the drawings,	sheets/fig NONE	, as originally filed.
			sheets/fig NONE	, filed with the demand.
			sheets/fig NONE	, filed with the letter of
			sheets/fig	, filed with the letter of
	X X	the description, the claims, the drawings,	pages NONE Nos. NONE sheets/fig NONE	·
3.	This to g	s report has been es to beyond the disclo	tablished as if (some of) the sure as filed, as indicated in	e amendments had not been made, since they have been considered the Supplemental Box Additional observations below (Rule 70.2(c)).
4. Ad		l observations, if	necessary:	
				•



International application No.

PCT/US95/06620

	ng such statem		
1. STATEMENT			
Novelty (N)	Claims	2	YI
	Claims	1 AND 3-5	NO
Inventive Step (IS)	Claims	NONE	
	Claims	1-5	YI
Industrial Applicability (IA)	Claims	1-5	VI
	Claims	NONE	YI
Claim 2 meet novelty under DCT Article 20			
P. P	CLAUMED IN CLAIM	of the references of record teach a lack 2. ubject matter claimed can be made or	A1 *
industrial applicability under PCT Article 33	(4) because the s	2.	~1. • • •
industrial applicability under PCT Article 33	(4) because the s	2.	A1
industrial applicability under PCT Article 33	(4) because the s	2.	A1 *
industrial applicability under PCT Article 33	(4) because the s	2.	A1 *
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industrial applicability under PCT Article 33	(4) because the s	2.	~1. • • •
industrial applicability under PCT Article 33	(4) because the s	2.	A1 1
industrial applicability under PCT Article 33	(4) because the s	2.	A1 4 4 A



International application No.

PCT/US95/06620

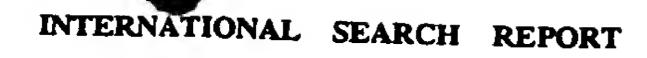
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

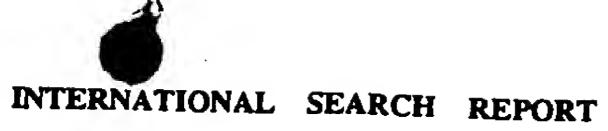
The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(6): C10M 135/18 and US CI.: 508/192,364,365



International application No. PCT/US95/06620

A. C	ASSIRICATION OF SUBJECT MAN				
IPC(6)	ASSIFICATION OF SUBJECT MATTER :C10M 135/18				
US CL	: 252/42.7, 46.4, 47.5, 32.7E				
B. FII	to International Patent Classification (IPC) or to ELDS SEARCHED	both national classification	and IPC		
U.S.	documentation searched (classification system follows) 252/32.7E, 42.7, 46.4, 47.5	owed by classification sym	nbols)		
Document	ation searched other than minimum documentation	o the extent that such docur	mente are include	ed in the Call.	
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Flectmain	data basa sasarah da la da				
Licetonic	data base consulted during the international search	n (name of data base and, v	where practicable	e, search terms used)	
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C. DO	CUMENTS CONSIDERED TO BE RELEVAN	Г			
Category*	Citation of document, with indication, when	e appropriate, of the releva	int passages	Relevant to claim No.	
X .	US,A, 5,281,347 (Igarashi et al) 25 January 199	4 column	1,3-5	
 V	3, lines 25 to column 4, lines 1.	25.	T, COIGIIII	1,3-5	
•				2	
Y	US A 4 692 256 /Uma				
	US,A, 4,692,256 (Umemura e column 4, lines 3-end and column	t al) 08 Septemb	per 1987,	1-5	
	of whice of the diffe column	iii o, imes o-end.			
Y	US,A, 4,360,438 (Rowan et al) :	23 November 198	2 column	1-5	
	1, lines 40-66 and column 3, lin	es 1-24.	~, coluilii	1-5	
Y					
•	US,A, 3,509,051 (Farmer et al) 28 April 1970, abstract and 1-5				
j	column 1, lines 28-62 and claim	S.			
j				j	
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İ					
	r documents are listed in the continuation of Box	C. See patent fa	mily annex.		
. 	ial categories of cited documents:	*T* later document pub	lished after the intern	ational filing date or priority	
to be	ment defining the general state of the art which is not considered of particular relevance		underlying the inven	CON DAIL AND AN	
	er document published on or after the international filing date	"X" document of partic	wine relevance; the o	laimed invention cannot be to involve an inventive step	
cited	ment which may throw doubts on priority claim(s) or which is to establish the publication date of another citation or other al reason (as specified)	white the doctainers	a men singe		
O* docu	ment referring to an oral disclosure, use, exhibition or other	considered to inve	RVC EN ENVERSOUS ST	chimed invention cannot be ep when the document is	
O +		ANTENDED ANTE OFFE	or more other such d person skilled in the s	OCCUPATION OF SHARE ASSESSED.	
asc p	nent published prior to the international filing date but later than iority date claimed	*&* document member o	of the same patent far	nily	
or are ac	tual completion of the international search	Date of mailing of the in			
20 JULY 19	95	2 3 A	UG 1995		
ame and mai	ling address of the ISA/US	Authorized office	~/////		
Box PCT Washington, I	of Patents and Trademarks	Millery)	1 lleto	h	
acsimile No.		Margaret B. Medley			
DOT on a		Telephone No. (703)	308-2518		

Form PCT/ISA/210 (second sheet)(July 1992)*



International application No. PCT/US95/06620

		PCT/US95/06	620
C (Continue	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relev	ant passages	Relevant to claim N
Y	US,A, 4,178,258 (Papay et al) 11 December 1979 ALI	· · ·	1-5
Y	US,A, 3,254,025 (LeSuer) 31 May 1966, column 2, lir column 21, lines 73 to column 1-64.	nes 6-40;	2-5
	US,A, 4,846,983 (Ward, Jr) 11 July 1989, column 1, is column 2, lines 1-20 and Tables I and II.	ines 37 to	1-5
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Europäisches Patentamt

Zweigstelle in Den Haag Recherchen-abteilung

European Patent Office

Branch at The Hague Search division Office européen des brevets

Département à La Haye Division de la recherche

19955032

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Zeichen/Ref./Réf.

PCT/US95/06620

Anmeldung Nr./Application No./Demande nº./Patent Nr./Patent No./Brevet nº.

95920657.4-1270-US9506620

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire
EXXON RESEARCH AND ENGINEERING COMPANY

SJA

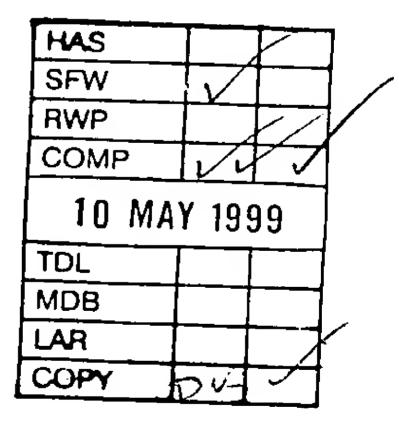
COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

1:127:19



REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number EP 95 92 0657

	ERED TO BE RELEVANT		
Citation of document with of relevant pas	indication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.6)
Citation of document with of relevant pass EP 0 562 172 A (ID) 29 September 1993 * page 2, line 50-1 * page 3, line 17-1	indication, where appropriate, sages EMITSU KOSAN CO) 58; claims 1,5 * 19; table 1 * EN CORP; EXXON RESEARCH March 1996 ole 1 * 24 *	to claim	•
The supplementary search reposet of claims valid and available Place of search MUNICH	ort has been based on the last at the start of the search. Date of completion of the search 28 April 1999	Kaz	Examiner

EPO FORM 1503 03.82 (P04C04)

CATEGORY OF CITED DOCUMENTS]

- X : particularly relevant if taken alone
 Y : particularly relevant if combined with another document of the same category
 A : technological background
 O : non-written disclosure
- P: intermediate document

- T: theory or principle underlying the invention
 E: earlier patent document, but published on, or after the filing date
 D: document cited in the application
- L: document cited for other reasons
- & : member of the same patent family, corresponding document

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 95 92 0657

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-04-1999

Patent documen cited in search rep		Publication date		Patent family member(s)	Publication date
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